

SCOPE & DEFINITIONS

This chapter contains criteria to control and regulate discharges of wastewater into surface waters. This includes (but is not limited to) stormwater runoff associated with industrial activities, domestic and industrial wastewater discharges, and pollutants from industrial discharges.

Best Management Practices (BMPs) – Practical practices and procedures that will minimize or eliminate the possibility of pollution being introduced into waters of Spain.

Biological Oxygen Demand (BOD₅) – The 5-day measure of the dissolved oxygen used by microorganisms in the biochemical oxidation of organic matter. The pollutant parameter is biochemical oxygen demand (i.e., biodegradable organics in terms of oxygen demand).

Carbonaceous Biochemical Oxygen Demand (CBOD₅) – The 5-day measure of the pollutant parameter, carbonaceous biochemical oxygen demand. This test can substitute for the BOD₅ testing which suppresses the nitrification reaction/component in the BOD₅ test.

Continental Waters – Any water body within Spain other than sea waters; this includes groundwater and surface waters (e.g., rivers, streams, lakes, reservoirs, springs, irrigation channels, etc).

Daily Discharge – The "discharge of a pollutant" measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the "daily discharge" is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement (e.g., concentration), "daily discharge" is calculated as the average measurement of the pollutant over the day.

Discharge of a Pollutant – Any addition of any pollutant or combination of pollutants to waters of Spain from any "point source".

Municipal Wastewater Treatment Plant (MWTP) – Any Spanish municipal facility designed to treat wastewater before its discharge to waters of Spain.

Effluent Limitation – Any restriction imposed on quantities, discharge rates, and concentrations of pollutants that are ultimately discharged from point sources into waters of Spain.

Industrial Activities Associated with Stormwater – Activities that during wet weather events may contribute pollutants to stormwater runoff or drainage. (See Table 4.4)

Interference – Any addition of any pollutant or combination of pollutant discharges that inhibits or disrupts the MWTS, its treatment processes or operations, or its sludge handling processes, use, or disposal.

Maximum Daily Discharge Limitation – The highest allowable daily discharge based on volume as well as concentration.

Point Source – Any discernible, confined, and discrete conveyance, including (but not limited to) any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, or rolling stock; but not including vessels, aircraft, or any conveyance that merely collects natural surface flows of precipitation.

Pollutant – Includes (but is not limited to) the following: dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt, and industrial, municipal, and agricultural waste discharged into water.

Process Wastewater – Any water which, during manufacturing or processing, comes into direct contact with, or results from the production or use of, any raw material, intermediate product, finished product, by-product, or waste product.

Regulated Facilities – Those DoD facilities for which criteria are established under this chapter.

Stormwater – Run-off and drainage from wet weather events such as rain, snow, ice, sleet, or hail.

Substantial Modification – Any modification to a facility, the cost of which exceeds \$1,000,000, regardless of funding source.

Total Suspended Solids (TSS) – The pollutant parameter total filterable suspended solids.

Total Toxic Organics (TTO) – The summation of all quantifiable values greater than 0.01 mg/L for the toxic organics in Table 4.3.

Waters of Spain – Waters included in the following categories:

- Territorial seas (recognized under customary international law)
- Continental waters (groundwater and surface water)

Note – Domestic or industrial waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of this chapter, are not waters of Spain. This exclusion applies only to manmade bodies of water that were neither originally waters of Spain nor resulted from impoundment of waters of Spain.

CRITERIA

C4.1 GENERAL EFFLUENT LIMITATIONS

DoD installations discharging wastewater into Spanish continental waters, Spanish municipal wastewater treatment plants (MWTPs), or to the sea will provide the Spanish Base Commander with information to seek authorization of their wastewater discharges (see Chapter 1 for the process). Wastewater discharges to Spanish continental waters (i.e., surface water) are authorized by the corresponding Spanish river basin authority. Wastewater discharges to Spanish MWTPs are authorized by the corresponding municipal authority. Wastewater discharges to the sea are authorized by the competent National or Regional authority.

C4.1.1 Effluent Limits. All discharges to Spanish continental waters will comply with the instantaneous effluent limits in Table 4.1, unless more protective standards are established in their site-specific discharge authorization.

All industrial discharges to the sea will comply with the effluent limits in Table 4.2, unless more protective standards are established in their site-specific discharge authorization.

All discharges to Spanish MWTPs will comply with the limits established in their site-specific discharge authorization.

C4.1.2 Monitoring. Monitoring requirements apply to all regulated facilities. The monitoring frequency (including both sampling and analysis) is established in Table 4.4. Samples shall be collected at the point of discharge to continental waters, the sea, or the MWTP.

C4.1.3 Record-Keeping Requirements. The following monitoring and record-keeping requirements are BMPs and apply to all facilities. Retain records for 3 years.

- The effluent, concentration, or other measurement specified for each regulated parameter
- The daily volume of effluent discharge from each point source
- Test procedures for the analysis of pollutants
- The date, exact place, and time of sampling and/or measurements
- The person who performed the sampling and/or measurements
- The date of analysis

C4.2 EFFLUENT LIMITATIONS FOR NON-CATEGORICAL INDUSTRIAL DISCHARGERS

DoD installations discharging industrial wastewater into a Spanish MWTPs will provide the Spanish Base Commander with information to seek authorization of their wastewater discharges (see Chapter 1 for the process). Wastewater discharges to a Spanish MWTPs are authorized by

the corresponding Spanish municipal authority. Installations will comply with the following discharge limits and monitoring requirements (in addition to the general criteria in C4.1) unless more protective standards are established in their site-specific discharge authorization.

C4.2.1 Effluent Limits. The following effluent limits will apply to all discharges of pollutants to Spanish MWTPs and associated collection systems from process wastewater for which categorical standards have not been established (see C4.3 for the categorical standards).

The discharge to a DoD-operated wastewater treatment plant or a Spanish MWTP of any type of waste (solid, liquid, or gaseous) classified as such based on the criteria established in Chapters 6-8 is prohibited.

C4.2.1.1 Solid or Viscous Pollutants. The discharge of solid or viscous pollutants that would result in an obstruction to the domestic wastewater treatment plant flow is prohibited.

C4.2.1.2 Ignitability & Explosivity

C4.2.1.2.1 The discharge of wastewater with a closed cup flashpoint of less than 60°C (140°F) is prohibited.

C4.2.1.2.2 The discharge of wastes with any of the following characteristics is prohibited:

- A liquid solution which contains more than 24% alcohol by volume and has a flash point less than 60°C (140°F)
- A non-liquid which under standard temperature and pressure can cause a fire through friction
- An ignitable compressed gas
- An oxidizer, such as peroxide

C4.2.1.3 Reactivity & Fume Toxicity. The discharge of any of the following wastes is prohibited:

- Wastes that are normally unstable and readily undergo violent changes without detonating
- Wastes that react violently with water
- Wastes that form explosive mixtures with water or form toxic gases or fumes when mixed with water
- Cyanide or sulfide waste that can generate potentially harmful toxic fumes, gases, or vapors

- Waste capable of detonation or explosive decomposition or reaction at standard temperature and pressure
- Wastes that contain explosives regulated by Chapter 5
- Wastes that produce any toxic fumes, vapors, or gases with the potential to cause safety problems or harm to workers

C4.2.1.4 Corrosivity. The discharge of pollutants that have the potential to be structurally corrosive to the MWTP is prohibited. In addition, no discharge of wastewater below a pH of 5.5 is allowed.

C4.2.1.5 Oil & Grease. The discharge of the following oils, which can pass through or cause interference to the MWTP, is prohibited: petroleum oil, non-biodegradable cutting oil, and products of mineral oil origin.

C4.2.1.6 Spills & Batch Discharges (Slugs). Activities or installations that have a significant potential for spills or batch discharges will develop a slug prevention plan. Each plan must contain the following minimum requirements:

- Description of discharge practices, including non-routine batch discharges
- Description of stored chemicals
- Plan for immediately notifying the MWTP of slug discharges and discharges that would violate prohibitions under this section, including procedures for subsequent written notification within 5 days
- Necessary practices to prevent accidental spills; this would include proper inspection and maintenance of storage areas, handling and transfer of materials, loading and unloading operations, control of plant site runoff, and worker training
- Proper procedures for building containment structures or equipment
- Necessary measures to control toxic organic pollutants and solvents
- Proper procedures and equipment for emergency response, and any subsequent plans necessary to limit damage suffered by the treatment plant or the environment

C4.2.1.7 Trucked & Hauled Waste. The discharge of trucked and hauled waste into any wastewater treatment plant is prohibited unless specifically authorized in the receiving treatment plant's discharge authorization. If not specifically authorized in the receiving treatment plant's discharge authorization, these wastes must be handled, treated, and disposed of in accordance with Chapter 6 (Hazardous Waste) or Chapter 7 (Solid Waste) as applicable.

- C4.2.1.8 Heat in amounts which inhibit biological activity in the MWTP resulting in interference, but in no case in such quantities that the temperature of the process water at the MWTP exceeds 40°C (104°F).

C4.3 EFFLUENT LIMITATIONS FOR CATEGORICAL INDUSTRIAL DISCHARGERS

DoD installations with categorical industrial discharges that discharge wastewater into Spanish MWTPs will provide the Spanish Base Commander with information to seek authorization of their wastewater discharges (see Chapter 1 for the process). Wastewater discharges to Spanish MWTPs are authorized by the corresponding Municipal authority.

Installations with categorical industrial discharges will comply with the following discharge limits and monitoring requirements unless more protective standards are established in their site-specific discharge authorization.

- C4.3.1 Any installations which have activities that fall into any of the industrial categories listed below must comply with the following effluent limitations.

- C4.3.1.1 Electroplating. The following discharge standards apply to electroplating operations in which metal is electroplated on any basis material and to related metal finishing operations as set forth in the various subparts. These standards apply whether such operations are conducted in conjunction with electroplating, independently, or as part of some other operation. Electroplating subparts are identified as follows:

- C4.3.1.1.1 Electroplating of Common Metals. Discharges of pollutants in process waters resulting from the process in which a material is electroplated with copper, nickel, chromium, zinc, tin, lead, cadmium, iron, aluminum, or any combination thereof.
- C4.3.1.1.2 Electroplating of Precious Metals. Discharges of pollutants in process waters resulting from the process in which a material is plated with gold, silver, iridium, palladium, platinum, rhodium, ruthenium, or any combination thereof.
- C4.3.1.1.3 Anodizing. Discharges of pollutants in process waters resulting from the anodizing of ferrous and nonferrous materials.
- C4.3.1.1.4 Metal Coatings. Discharges of pollutants in process waters resulting from the chromating, phosphating, or immersion plating on ferrous and nonferrous materials.
- C4.3.1.1.5 Chemical Etching & Milling. Discharges of pollutants in process waters resulting from the chemical milling or etching of ferrous and nonferrous materials.

- C4.3.1.1.6 Electroless Plating. Discharges of pollutants in process waters resulting from the electroless plating of a metallic layer on a metallic or nonmetallic substrate.
- C4.3.1.1.7 Printed Circuit Board Manufacturing. Discharges of pollutants in process waters resulting from the manufacture of printed circuit boards, including all manufacturing operations required or used to convert an insulating substrate to a finished printed circuit board.
- C4.3.1.1.8 The following discharge standards apply to facilities in the above electroplating subparts which discharge less than 38,000 liters/day (10,000 gallons/day):

Pollutant	Discharge Limit (mg/L)
Cyanide, amenable	5.0
Lead	0.2
Total Toxic Organics	4.57

- C4.3.1.1.9 The following discharge standards apply to facilities in the above electroplating subparts which discharge 38,000 liters/day (10,000 gallons/day) or more:

Pollutant	Discharge Limit (mg/L)
Cyanide, total	0.5
Copper	0.2
Nickel	2.0
Chrome	2.0
Zinc	3.0
Lead	0.2
Total Metals	3.0
Total Toxic Organics	2.13

- C4.3.1.1.10 In addition to the above standards, facilities which electroplate precious metals and which discharge 38,000 liters/day (10,000 gallons/day) or more must comply with the following standard:

Pollutant	Discharge Limit (mg/L)
Silver	1.2

- C4.3.1.1.11 The following discharge standards apply to facilities in the above electroplating criteria, regardless of the volume of wastewater discharged:

Parameter	Maximum Discharge Load	Discharge Limit (mg/L)
Cadmium	0.3 g of Cd discharged / kg of Cd used	0.02

- C4.3.1.2 **Monitoring.** Monitoring of categorical industrial dischargers (including both sampling and analysis) will be accomplished quarterly and will include all parameters which are specified in the section of this chapter dealing with industrial dischargers. Samples should be collected at the point of discharge prior to any mixing with the receiving water. Sampling for total toxic organics (TTO) may not be required if the commanding officer determines that no discharge of concentrated toxic organics into the wastewaters has occurred and the facility has implemented a TTO management plan (see Table 4.4 - Monitoring Requirements).

C4.4 STORMWATER MANAGEMENT

- C4.4.1 Develop and implement stormwater pollution prevention plans (SWPPPs) for activities listed in Table 4.5. Update the SWPPP annually using in-house resources.
- C4.4.2 **Employee Training.** Personnel who handle hazardous substances or perform activities that could contribute pollution to wet weather events should be trained in appropriate Best Management Practices. Such training should stress SWPPP principles and awareness of possible pollution sources including non-traditional sources such as sediment, nitrates, pesticides, and fertilizers.
- C4.4.3 Stormwater conveyed to a separate stormwater sewer system can be discharged to soil or surface water without an authorization, provided that it meets the limits in Table 4.1. If monitoring of the stormwater conveyed to a separate stormwater sewer system indicates that the discharge exceeds the limits in Table 4.1, the discharge must be treated and must comply with the criteria established in C4.1.

Stormwater that is discharged to a combined sewer system must follow the criteria established in C4.1.

- C4.4.4 The discharge of stormwater into groundwater is prohibited.

C4.5 SEPTIC SYSTEMS

Discharge to a septic system of wastewater containing industrial pollutants in levels that will inhibit biological activity is prohibited. Known discharges of industrial pollutants to existing

septic systems shall be eliminated and appropriate actions should be taken to eliminate contamination. Siting of such systems is addressed in Chapter 3 (Drinking Water).

C4.6 SLUDGE DISPOSAL

All sludges produced during the treatment of wastewater will be disposed of under Chapter 6 (Hazardous Waste) or Chapter 7 (Solid Waste) as appropriate.

C4.7 COMPLAINT SYSTEM

A system for investigating water pollution complaints from individuals or Spanish water pollution control authorities will be established, involving the Environmental Executive Agent, as appropriate.

ADMINISTRATIVE ITEMS

1. DoD installations discharging wastewater into Spanish continental waters, territorial seas, or to a Spanish MWTP will provide the Spanish Base Commander with information to seek authorization of their wastewater discharges (see Chapter 1 for the process). Wastewater discharges to surface water are authorized by the corresponding Spanish river basin authority. Wastewater discharges to Spanish MWTP are authorized by the corresponding Municipal authority.

Table 4.1 – Effluent Limits for Discharges to Spanish Continental Waters

Parameter	Comment	Effluent Limit (mg/L)
Aldehydes	-	1
Aluminum	K	1
Ammonium (as NH_4^+)	L	15
Arsenic	H	0.5
Barium	H	20
BOD ₅	D	40
Boron	H	2
Cadmium	H	0.1
Chlorides	-	2,000
Chrome III	H	2
Chrome VI	H	0.2
COD	E	160
Color	G	Not perceptible after a dilution of 1/20
Copper	H	0.2
Cyanides	-	0.5
Detergents	M	3
Fluorides (as F)	-	6
Iron	H	2
Lead	H	0.2
Manganese	H	2
Mercury	H	0.05
Nickel	H	2
Nitrite (N)	K	10
Oil and grease	-	20
Organophosphorus pesticides	-	0.1
Pesticides, total (excluding organophosphorus pesticides)	-	0.05
Phenols	L	0.5
pH	A	5.5 - 9.5
Selenium	H	0.03
Settleable Solids (ml/L)	C	0.5
Sulfates (as SO_4^{2-})	-	2,000
Sulfides (as H_2S)	-	1
Sulfites (as SO_3^{2-})	-	1
Temperature (°C)	F	3°
Tin	H	10
Total Particulates	-	Absent
Total Phosphorous (discharges to rivers)	J	10
Total Phosphorous (discharges to lakes or reservoirs)	J	0.5
Total Suspended Solids	B	80
Total Toxic Metals	I	3
Zinc	H	3

Notes:

- A. The pH at 50 meters from the discharge point must be between 6.5 and 8.5.
- B. The particulates do not pass through a membrane of 0.45 microns.
- C. Measured after 2 hours in an Imhoff cone in ml/L.
- D. For industrial discharges with a different composition than sanitary wastewater, the maximum concentration will be 70% of the BOD₅.

- E. Analysis by potassium dichromate.
- F. The temperature in rivers after the dispersion zone will not exceed a 3°C increase.
- G. The color assessment must be conducted through 10 cm of a diluted sample.
- H. Limit refers to the dissolved elements such as ions and complex forms.
- I. The sum of the fractional proportions of the actual amount of the metallic toxic elements (arsenic, cadmium, chrome VI, nickel, mercury, lead, selenium, copper and zinc) to the maximum allowable amount of those elements shall not exceed 3.
- J. If discharging to lakes or reservoirs, the limit should not exceed 0.5 to prevent eutrophication blooms.
- K. Total nitrogen in rivers and reservoirs should not exceed 10 mg/L, expressed as nitrogen
- L. Expressed as C_6O_5OH .
- M. Expressed as lauryl-sulfate.

Table 4.2 – Maximum Effluent Limits for Industrial Discharges to the Sea in the Andalusian Region

Parameter	Units	Monthly Average	Daily Average	Single Value
General Parameters				
pH		5.5 – 9.5		
Color ¹		1:40		
Dissolved Solids	mg/L	300	400	500
Sedimentable Materials	ml/L	2	3	4
Coarse Material		Absent		
Floating solids		Absent		
BOD ₅	mg/L	300	400	500
COD	mg/L	450	600	750
Total Organic Carbon	mg/L	150	200	250
Turbidity	NTU	150	250	400
Temperature ²	°C	Increase of $\pm 3^{\circ}$		
Total Residual Chlorine	mg/L	0.2	0.5	1
Aluminum	mg/L	3	6	10
Aldehydes	mg/L	1	2	3
Nitrates	mg of O ₃ /L	75	100	150
Non-polar Hydrocarbons	mg/L	15	20	40
Oils and Greases	mg/L	25	40	75
Organochlorinated Compounds	kg AOX/TAD ³	1	1	1
Pesticides	mg/L	0.4	1.2	2.5
Phenols	mg/L	3	15	15
Polycyclic Aromatic Hydrocarbons	mg/L	0.01	0.02	0.05
Sulfides	mg/L	1	2	4
Sulfites	mg/L	1	2	4
Surfactants	mg/L	5	20	50
Toxicity (equitox)		50	50	50
Hazardous Parameters				
Aldrin and derivatives	mg/L	0.002	0.01	0.02
Ammonia (as NH ₄ ⁺)	mg/L	60	80	100
Arsenic	mg/L	1	3	5
Cadmium	mg/L	0.2	0.4	1
Carbon Tetrachloride	mg/L	1.5	3	6
Chloroform	mg/L	1	2	4
Chrome IV	mg/L	0.2	0.4	0.5
Chrome Total	mg/L	0.5	2	4
Copper	mg/L	0.5	2.5	4
Cyanides	mg/L	0.5	1	2
DDT	mg/L	0.2	0.4	0.8
1,2-Dichloroethane (EDC) ⁸	mg/L	2.5	5	10
Fluorides	mg/L	10	15	20
Hexachlorocyclohexane (HCH)	mg/L	2	4	8
Hexachlorobenzene (HCB)	mg/L	1 ⁶ and 1.9 ⁷	2 ⁶ and 3.8 ⁷	4 ⁶ and 7.6 ⁷
Hexachlorobutadiene (HCBD)	mg/L	1.5	3	6
Lead	mg/L	0.5	1	2
Mercury	mg/L	0.05	0.2 ⁴ and 0.1 ⁵	0.2 ⁴ and 0.1 ⁵

Parameter	Units	Monthly Average	Daily Average	Single Value
Nickel	mg/L	3	6	10
Pentachlorophenol	mg/L	1	2	3
Perchlorethylene ⁸	mg/L	1.25	2.5	5
Selenium	mg/L	0.05	0.1	0.2
Tin	mg/L	10	15	20
Titanium	mg/L	1	3	5
Total Phosphorus	mg/L	40	50	60
Trichloroethylene ⁸	mg/L	0.5	1	2
Trichlorobenzene ⁸	mg/L	1	2	4
Zinc	mg/L	3	6	10

Notes:

1. Not perceptible over a thickness of 10 cm, with the indicated dilution in more than 10% of the reference value in Co-Pt units.
2. At a distance of 100 meters from the discharge point and at a depth of 1 meter.
3. TAD: Ton of dry mash.
4. Sector of the electrolysis of the chlorides that uses mercury cathodes cells.
5. Other sectors excluding the electrolysis of the alkaline chlorides.
6. Production and transformation of HCB.
7. Production of perchlorethylene and carbon tetrachloride by means of percolation.
8. Different discharge limits for diverse types of industries.

Table 4.3 – Components of Total Toxic Organics

Volatile Organics	
Acrolein (Propenyl)	Bromodichloromethane
Acrylonitrile	1,1,2,2-Tetrachloroethane
Methyl chloride (chloromethane)	1,2-Dichloropropane
Methyl bromide (bromomethane)	1,3-Dichloropropylene (1,3-Dichloropropene)
Vinyl Chloride (chloroethylene)	Trichloroethene
Chloroethane	Dibromochloromethane
Methylene Chloride (9 dichloromethane)	1,1,2-Trichloroethane
1,1-Dichloroethene	Benzene
1,1-Dichloroethane	2-Chloroethyl vinyl ether (mixed)
1,2-Dichloroethane	Bromoform (tribromomethane)
1,2-trans-Dichloroethene	Tetrachloroethene
Chloroform (trichloromethane)	Toluene
1,1,1-Trichloroethane	Chlorobenzene
Carbon Tetrachloride (tetrachloromethane)	Ethylbenzene
Base/Neutral Extractable Organics	
N-nitrosodimethylamine	Diethyl phthalate
bis (2-chloroethyl) ether	1,2-Diphenylhydrazine
1,3-Dichlorobenzene	N-nitrosodiphenylamine
1,4-Dichlorobenzene	4-Bromophenyl phenyl ether
1,2-Dichlorobenzene	Hexachlorobenzene
bis(2-chloroisopropyl)-ether	Phenanthrene
Hexachloroethane	Anthracene
N-nitrosodi-n-propylamine	Di-n-butyl phthalate
Nitrobenzene	Fluoranthene
Isophorone	Pyrene
bis (2-chloroethoxy) methane	Benzidine
1,2,4-trichlorobenzene	Butyl benzyl phthalate
Naphthalene	1,2-benzoanthracene (benzo (a) anthracene)
Hexachlorobutadiene	Chrysene
Hexachlorocyclopentadiene	3,3-Dichlorobenzidine
2-Chloronaphthalene	bis (2-ethylhexyl) phthalate
Acenaphthylene	Di-n-octyl phthalate
Dimethyl Phthalate	3,4-Benzofluoranthene (benzo (b) fluoranthene)
2,6-Dinitrotoluene	11,12-Benzofluoranthene (benzo (k) fluoranthene)
Acenaphthene	Benzo (a) pyrene (3,4-benzopyrene)
2,4-Dinitrotoluene	Indeno (1,2,3-cd) pyrene (2,3-o-phenylene pyrene)
Fluorene	1,2,5,6-Dibenzanthracene (dibenezo (a,h) anthracene)
4-Chlorophenyl phenyl ether	1,12-Benzoperylene (benzo (g,h,i) perylene)
Acid Extractable Organics	
2-Chlorophenol	2,4,6-Trichlorophenol
Phenol	2,4-Dinitrophenol
2-Nitrophenol	4-Nitrophenol
2,4-Dimethylphenol	p-Chloro-m-cresol
2,4-Dichlorophenol	Pentachlorophenol
4,6-Dinitro-o-cresol	

Pesticides/PCBs	
Alpha-Endosulfan	Endrin
Beta-Endosulfan	Endrin aldehyde
Endosulfan sulfate	Heptachlor
Alpha-BHC	Heptachlor Epoxide (BHC-hexachlorocyclohexane)
Beta-BHC	Toxaphene
Delta-BHC	PCB-1242 (Arochlor 1242)
Gamma-BHC	PCB-1254 (Arochlor 1254)
4,4-DDT	PCB-1221 (Arochlor 1221)
4,4-DDE (p,p-DDX)	PCB-1232 (Arochlor 1232)
(p,p-TDE)	PCB-1248 (Arochlor 1248)
Aldrin	PCB-1260 (Arochlor 1260)
Chlordane (technical mixture and metabolites)	PCB-1016 (Arochlor 1016)
Dieldrin	

Table 4.4 – Monitoring Requirements

Plant Capacity (MGD)	Monitoring Frequency
0.001 - 0.99	Monthly
1.0 - 4.99	Weekly
> 5.0	Daily

Table 4.5 – Best Management Practices

Activity	Best Management Practice
Aircraft Ground Support Equipment Maintenance	Perform maintenance/repair activities inside Use drip pans to capture drained fluids Cap hoses to prevent drips and spills
Aircraft/runway deicing	Perform anti-icing before the storm Put critical aircraft in hangars/shelters
Aircraft/vehicle fueling operations	Protect fueling areas from the rain Provide spill response equipment at fueling station
Aircraft/vehicle maintenance & repair	Perform maintenance/repair activities inside Use drip pans to capture drained fluids
Aircraft/vehicle washing	Capture wash water and send to wastewater treatment plant Treat wash water with oil water separator before discharge
Bulk fuel storage areas	Use dry camlock connectors to reduce fuel loss Capture spills with drip pans when breaking connections Curb fuel transfer areas, treat with oil water separator
Construction activities	Construct sediment dams/silt fences around construction sites
Corrosion control activities	Capture solvent/soaps used to prepare aircraft for painting Perform corrosion control activities inside
Hazardous material storage	Store hazardous materials inside or under cover Reduce use of hazardous materials
Outdoor material storage areas	Cover and curb salt, coal, urea piles Store product drums inside or under cover Reduce quantity of material stored outside
Outdoor painting/depainting operations	Capture sandblasting media for proper disposal Capture paint clean up materials (thinners, rinsates)
Pesticide operations	Capture rinse water when mixing chemicals Store spray equipment inside
Power production	Capture leaks and spills from power production equipment using drip pans, etc.
Vehicle storage yards	Check vehicles in storage for leaks and spills Use drip pans to capture leaking fluids